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HISTORIC AMERICAN ENGINEERING RECORD

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Jet Propulsion Laboratory Edwards Facility, HAER No. CA-163-O
Oxidizer Grinder Building (Building 4235/E-36)
Edwards Air Force Base
Boron Vicinity
Kern County
California

Photographers' Credits:

Credit PSR: Philipp S. Rittermann, Photography &
Preservation Associates, Inc., September, 1995
Credit WCT: Photographic copy of JPL photograph by
William C. Tibbitts, date cited in caption

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Credit PSR. The northwest and southwest facades appear as seen when looking northeast (46°). Doors have been opened to show the interiors of the oxidizer dust receiver room at left; the building equipment room (air conditioning) is on the right. The dust receiver is a Roto-Clone Type N hydrostatic precipitator, which uses a 5 horsepower vacuum motor. Refrigeration units are mounted on pads immediately to the right of the building in this view. The grinder room is at the far end of the building; access to it is gained via double doors on the left where a hoist beam projects out from the top of the door opening. Building 4284/E-85 (Oxidizer Dryer Blender) appears in the left background; 4283/E-84 (Oxidizer Grinder) appears in the right background.

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Credit PSR. The interior of the grinder room appears as seen looking southeast (148°), showing the remaining grinder equipment in the building. Note the blow-out wall in the background, and the water sprinkler head positioned over the hopper. The hopper top is connected to the dust receiver in the adjacent room. The blow-out wall is constructed to relieve pressure easily should an explosion occur, thus minimizing damage to the rest of the building structure. The floor has a conductive coating which dissipates static electrical charges that might otherwise cause fires.

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Credit WCT. Original 2-¼" x 2-¼" color negative is housed in the JPL Photography Laboratory, Pasadena, California. View shows JPL staff member John Morrow loading the grinder hopper. The hopper has a 10 mesh screen to filter out particles too large for the mill. Oxidizer is passed steadily to the hammers by a stainless steel feed screw. Oxidizer may be passed through the mill several times depending on the fineness required by a given propellant formula; the maximum charge is 130 pounds (59.0 Kg). The drum below the mill has an electrically conductive plastic liner which receives the ground oxidizer (JPL negative no. JPL-10279AC, 27 January 1989).